



CALPINE

May 3, 2005

DUBLIN OFFICE

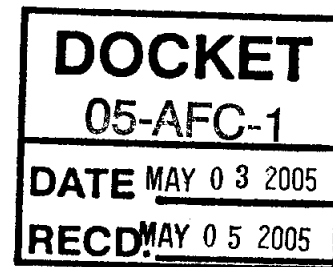
4160 DUBLIN BOULEVARD, SUITE 150

DUBLIN, CALIFORNIA 94568-3139

925.479.6600

925.479.7300 (FAX)

Mr. Thomas Goff
Permit Services Manager
San Joaquin Valley APCD
2700 M Street, Suite 275
Bakersfield, CA 93301-2373



Subject: Pastoria Energy Facility Expansion Project
Application for Authority to Construct

Dear Mr. Warner:

Please find attached a copy of the Application for Certification (AFC) for a proposed expansion project at the Pastoria Energy Facility in southern Kern County. This AFC was filed with the California Energy Commission on April 28, 2005. The AFC materials, together with the enclosed San Joaquin Valley APCD (District) permit application forms and air quality modeling data on compact disc, are enclosed for your review.

The Project consists of the addition of one 160 MW GE 7FA simple cycle combustion turbine generator to be constructed and operated at PEF. Like the existing equipment at PEF, the new CTG will be fired on natural gas exclusively. The turbine will be equipped with a dry low-NOx combustor and selective catalytic reduction to minimize emissions.

We have included a check for \$60 to cover the filing fee for new permit unit. We understand that the District will be billing PEF for the engineering evaluation fee, in accordance with District Rule 3010.

If you have any questions regarding this application, please contact Nancy Matthews of Sierra Research at (916) 444-6666.

Sincerely,

Barbara McBride

Director, Safety, Health and Environment

enclosure

cc: (w/o enclosure)

Andrew Whittome, Calpine
Michael Argentine, Calpine
Gary Fuller, PEF
Jennifer Scholl, URS
Nancy Matthews, Sierra Research
CEC Dockets Office



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Certification Pastoria Expansion Project

I, Barbara McBride, on behalf of Calpine Corporation, hereby certify under penalty of perjury as follows:

1. I am authorized to make this certification on behalf of Calpine Corporation.
2. This certification is made pursuant to the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.
3. To the best of the undersigned's knowledge, all major stationary sources owned or operated by Calpine Corporation in the State of California are either in compliance or on a schedule of compliance with all applicable state and federal emission limitations and standards.

Delta Energy Center
Los Medanos Energy Center
Los Esteros Critical Energy Facility
Metcalf Energy Center
Pastoria Energy Facility
Sutter Power Plant
Gilroy Power Plant
King City Power Plant
Pittsburg Power Plant (at Dow Chemical)
Greenleaf 1
Greenleaf 2
Agnews Power Plant
Watsonville Power Plant
Aidlin Geothermal Power Plant
Bear Canyon Geothermal Power Plant
Sonoma Geothermal Power Plant
West Ford Flat Geothermal Power Plant
McCabe Geothermal Power Plant
Ridgeline Geothermal Power Plant
Fumarole Geothermal Power Plant
Eagle Rock Geothermal Power Plant

Cobb Creek Geothermal Power Plant
Big Geysers Geothermal Power Plant
Sulphur Springs Geothermal Power Plant
Quicksilver Geothermal Power Plant
Lake View Geothermal Power Plant
Socrates Geothermal Power Plant
Calistoga Geothermal Power Plant
Grant Geothermal Power Plant
And supporting Steam Fields
Gilroy Energy Center
King City Energy Center
Lambie Energy Center
Goosehaven Energy Center
Creed energy Center
Wolfskill Energy Center
Yuba City Energy Center
Feather River Energy Center
Riverview Energy Center

Each of the statements herein is made in good faith. Accordingly, it is Calpine Corporation's understanding in submitting this certification that the SJVUAPCD shall take no action against Calpine Corporation or any of its employees based on any statement made in this certification.

Barbara McBride
Director Safety, Health and Environment
Calpine Corporation

Dated: 5/3/05



San Joaquin Valley Air Pollution Control District

www.valleyair.org

Permit Application For:



- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
- AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
- AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
- PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: Pastoria Energy Facility, LLC	
2. MAILING ADDRESS: P.O. Box 866 STREET/P.O. BOX: _____ CITY: Lebec STATE: CA 9-DIGIT ZIP CODE: 93243-0866	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: 39789 Edmonston Pumping Plant Road CITY: Lebec _____/4 SECTION 7 TOWNSHIP 10N RANGE 18W	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO S.I.C. CODE(S) OF FACILITY (If known): 4911
4. GENERAL NATURE OF BUSINESS: electric generation	INSTALL DATE: asap
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC (If yes, please complete and attach a Compliance Certification form (TVFORM-005)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) addition of one simple-cycle GE 7FA natural gas-fired combustion turbine with SCR to existing PEF facility	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If yes, ATC/PTO #: S-3636	Optional Section 11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS: "SPARE THE AIR" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info "INSPECT" <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Send info 
9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? (If "No" is checked, please attach explanation) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, NOV/NTC #:	
12. TYPE OR PRINT NAME OF APPLICANT: Andrew Whittome	TITLE OF APPLICANT: Project Manager
13. SIGNATURE OF APPLICANT: 	DATE: May 2nd 2005 PHONE #: (925) 479-6728 FAX #: (925) 479-7307 E-MAIL: awhittome@calpine.com

FOR APCD USE ONLY:

DATE STAMP:	FILING FEE RECEIVED: \$ _____ CHECK #: _____
	DATE PAID: _____
	PROJECT #: _____ FACILITY ID: _____

Northern Regional Office * 4230 Kiernan Avenue, Suite 130 * Modesto, California 95356-9321 * (209) 557-6400 * FAX (209) 557-6475
Central Regional Office * 1990 East Gettysburg Avenue * Fresno, California 93726-0244 * (559) 230-5900 * FAX (559) 230-6061
Southern Regional Office * 2700 M Street, Suite 275 * Bakersfield, California 93301-2370 * (661) 326-6900 * FAX (661) 326-6985

Rev: January 28, 2005

San Joaquin Valley Air Pollution Control District
Supplemental Application Form
Gas Turbines

Please complete one form for each gas turbine.

This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form

PERMIT TO BE ISSUED TO: **Pastoria Energy Facility**

LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:
 El Tejon Historial Land Grant (Sec 7, T10N, R18W)

EQUIPMENT DESCRIPTION

	<input checked="" type="checkbox"/> Industrial Frame <input type="checkbox"/> Aero Derivative <input type="checkbox"/> Other: _____		
	Manufacturer: GE	Model: 7FA	Serial Number: tbd
	<input checked="" type="checkbox"/> Simple Cycle <input type="checkbox"/> Combined Cycle <input type="checkbox"/> Co-generation <input type="checkbox"/> Other: _____		
	Total Rated Shaft Output Power: <u>160</u> MW		
	<input type="checkbox"/> Peaking Unit - limited to no more than 877 hrs/yr of operation <input type="checkbox"/> Emergency Standby - limited to less than 200 hrs/yr of operation <input checked="" type="checkbox"/> Full Time - must have either a Continuous Emission Monitoring System (CEMS) or an alternate emissions monitoring plan (must be approved by the APCO) <input checked="" type="checkbox"/> CEMS, please specify all pollutants monitored: <input checked="" type="checkbox"/> NO _x <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O ₂ <input type="checkbox"/> Other _____ <input type="checkbox"/> Alternate Emissions Monitoring Plan (please provide details in additional documentation)		
	<input checked="" type="checkbox"/> Gaseous Fuel Meter <input type="checkbox"/> Liquid Fuel Meter <input type="checkbox"/> None		
	Will this unit be used in an electric utility rate reduction program? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	Manufacturer: GE	Model: DLN	Number of Combustors: 1
	Maximum Heat Input Rating (for all combustors @ ISO standard conditions): <u>1720</u> MM Btu/hr		
	Water Injection: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Dry Low NO _x Technology: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	Steam Injection: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Other NO _x Control Technology: <u>SCR</u>	

EMISSIONS DATA

	Primary Fuel Type: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: _____		
	Higher Heating Value: <u>1056</u> Btu/gal or Btu/scf	Sulfur Content: <u>0.75</u> % by weight or gr/scf	
	Maximum Fuel Use @ HHV: <u>1696</u> M scf/hr or gal/hr	Rated Efficiency (EFF _{Mfg}): _____ %	
		2.5 ppmvd	0.009 lb/MMBtu
		6.0 ppmvd	0.0133 lb/MMBtu
		2.0 ppmvd	0.0025 lb/MMBtu
		9.0 lb/hr	varies lb/MMBtu
		<u>15</u> %	

EMISSIONS DATA (continued)

When will the secondary fuel be used?	
<input type="checkbox"/> Primary fuel curtailment <input type="checkbox"/> Simultaneously with primary fuel <input type="checkbox"/> Other: none	
Secondary Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Diesel <input type="checkbox"/> Other: none	
Higher Heating Value: _____ Btu/gal or Btu/scf	Sulfur Content: _____ % by weight or gr/scf
Maximum Fuel Use @ HHV: _____ scf/hr or gal/hr	Rated Efficiency (EFF _{Mfg}): _____ %
	_____ ppmvd lb/MMBtu
	_____ ppmvd lb/MMBtu
	_____ ppmvd lb/MMBtu
	_____ lb/hr lb/MMBtu
	_____ %
<input type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emission Source Test <input type="checkbox"/> Other: _____	

EMISSIONS CONTROL

<input type="checkbox"/> Inlet Air Filter/Cooler	<input type="checkbox"/> Lube Oil Vent Coalescer
<input type="checkbox"/> Selective Catalytic Reduction - Manufacturer: <u>tbd</u> Model: <u>tbd</u>	
<input type="checkbox"/> Oxidation Catalyst - Manufacturer: _____ Model: _____	
Control Efficiencies: NO _x <u>68</u> %, SO _x _____ %, PM ₁₀ _____ %, CO _____ %, VOC _____ %	
<input type="checkbox"/> Other (please specify) _____	
For units equipped with exhaust gas NO _x control equipment and rated < 10 MW, or rated ≥ 10 MW but operated < 4,000 hr/yr, one may choose at least one of the following alternate emission monitoring schemes in lieu of a CEMS (each option below must be approved by APCO on a case-by-case basis. Please include a detailed proposal for each option chosen):	
<input type="checkbox"/> Periodic NO _x emission concentration <input type="checkbox"/> Turbine exhaust O ₂ concentration <input type="checkbox"/> Air-to-Fuel ratio	
<input type="checkbox"/> Flow rate of reducing agents added to turbine exhaust <input type="checkbox"/> Catalyst inlet and outlet temperature <input type="checkbox"/> Catalyst inlet and exhaust O ₂ conc.	
<input type="checkbox"/> Other operation characteristics as approved by the APCO (specify on attached sheet)	

HEALTH RISK ASSESSMENT DATA

Maximum Operating Schedule: <u>24</u> hours per day, and <u>8760</u> hours per year	
	<u>27,600</u> feet Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	<u>NNE</u> Direction from the stack to the receptor, i.e. North or South.
	<u>2000</u> feet Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	<u>SE</u> Direction from the stack to the receptor, i.e. North or South.
	<u>131</u> feet above grade
	<u>216</u> inches at point of release
	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input type="checkbox"/> None <input type="checkbox"/> Other: _____
	<input type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____° from vert. or _____° from horiz.
Flowrate: <u>varies</u> acfm	Temperature: <u>varies</u> °F
<input type="checkbox"/> Urban (area of dense population) <input type="checkbox"/> Rural (area of sparse population)	

FOR DISTRICT USE ONLY

Date:	FID:	Project:	Public Notice: Y N
Comments:			

INVOICE NO.	REFERENCE	AMOUNT	DISCOUNT	NET AMT.
0020050361		60.00	0.00	60.00

DATE

05/03/05

CHECK NUMBER

00018495

CHECK AMOUNT

\$ 60.00



SIERRA RESEARCH

916-444-6666
1801 J STREET
SACRAMENTO, CA 95814UNION BANK OF CALIFORNIA
Sacramento, CA 95814
01-49/1210

018495

CHECK NO.
00018495

** SIXTY DOLLARS AND 00 CENTS **

DATE

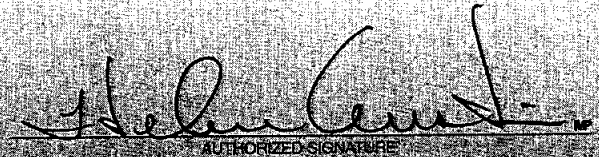
05/03/05

AMOUNT

*****60.00

PAY
TO THE
ORDER
OFSan Joaquin Valley APCD
4230 Kiernan Avenue Suite 130
Modesto CA 95356-9321

MEMO: PEF Expansion Project application


AUTHORIZED SIGNATURE